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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,210	07/07/2003	Masahiko Mizutani	520.42914X00	4588
24956 7590 01/25/2008 MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C. 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314			EXAMINER RUSSELL, WANDA Z	
			ART UNIT 2616	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/613,210

**Applicant(s)**

MIZUTANI ET AL.

**Examiner**

Wanda Z. Russell

**Art Unit**

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 4-13, and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonekura (Pub No. US 2002/0087730 A1), in view of Kolsky (Pub No. US 2003/0028599 A1).

Regarding **claim 1**, Yonekura substantially discloses a content relay (Fig. 2) node (at 10a-Fig. 2) having a function of routing data packets ([0035], lines 3-4) in an application layer (web content, Title), comprising:

a receiving unit (10, 10a-Fig. 1, and 10a-Fig. 2) having a plurality of input ports (20a, 20a, 20a-Fig. 1, and Fig. 2);

a transmitting unit (10, 10a-Fig. 1, and 10a-Fig. 2) having a plurality of output ports (20a, 20a, 20a-Fig. 1, and Fig. 2);

a data processing unit (10a-Fig. 2, and [0045], last line and line 4-end);

a switch unit (relay transferring, [0015], line 3, and 10, 10a-Fig. 1 and 10a-Fig. 2) for connecting said receiving unit, said transmitting unit, and said data processing unit;

a plurality of storages (10a, 20a-Fig. 1, and [0048], lines 7-10) having a data storing function; and

a routing control unit (10, 10a-Fig. 1, and 10a-Fig. 2) for controlling ([0039], last 6 lines) said transmitting unit, and said switch unit (Fig. 2),

wherein each of said data packets ([0035], line 6) includes a storage address of the application layer for identifying (select, [0039], 4<sup>th</sup> line from the end) said plurality of storages on a network and a data attribute ([0047], lines 8-11. "to specify a mobile common carrier, to which it belongs, the model of the portable telephone set, and the like" are the data attribute),

wherein said receiving unit has means for receiving (s1-Fig. 2) a data packet, means for extracting (s2-Fig. 2, and [0044], lines 3-6) the storage address and the data attribute from the data packet, means for transferring (s4-Fig. 2, and manages, [0040], 5<sup>th</sup> line from the end) the data attribute to said data processing unit (10a-Fig. 2) and the storage address said routing control unit (10a-Fig. 2), and means for sending (s4-Fig. 2, and manages, [0040], 5<sup>th</sup> line from the end) the data packet to said switch unit (Fig. 2),

wherein said routing control unit has means for selecting (select, [0039], 4<sup>th</sup> line from the end), as a destination of a received data packet, one of said transmitting unit and said data processing unit on the basis of routing information including the storage address and instructing said switch unit to make switching (s2-s10-Fig. 2, and [0039], last 6 lines),

wherein said storage has means for storing ([0048], lines 7-10) the received data,

wherein said switch unit has means for switching (request, [0035], line 9 and Fig. 2) a route according to an instruction from said routing control unit ([0035], lines 9-10),

wherein said data processing unit has means for storing ([0048], lines 7-10) or transmitting (s2-s10-Fig. 2, and [0039], last 6 lines) data on data attribute, and

wherein said transmitting unit has means for processing ([0045], lines 5-10) the header of a data packet in accordance with a control signal from said routing control unit and means for transferring (s9-Fig. 2) the data packet to a neighboring relay node (10b-Fig. 2).

However, Yonekura fails to specifically disclose that data packets include a storage address of the application layer.

Kolsky discloses that data include a storage address of the application layer ([0021], lines 5- 7).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Yonekura with Kolsky to obtain the invention as specified, for more application choices.

Regarding **claim 4**, Yonekura discloses the content relay node according to claim 1, wherein the storage has a memory or a memory space constructed by one HDD or a plurality of media (10a-Fig. 2).

Regarding **claim 5**, Yonekura discloses the content relay node according to claim 1, wherein said switch unit (10a-Fig. 2) has means for sending an input data packet to the data processing unit in order to store received data into the storage (Fig. 2, and [0048], lines 7-end), and

wherein said storage has means for receiving (s1-Fig. 2) data from said data processing unit (10a-Fig. 2) and storing ([0048], line 7-10) the received data in the node at least until transfer of the data to the next relay node is completed (Fig. 2).

Regarding **claim 6**, Yonekura discloses the content relay node according to claim 5, further comprising:

at least one of means for storing ([0048], line 7-10) received data in the form of a packet and means for rebuilding (insert, [0048], line 8) data from a plurality of packets and storing ([0048], line 10) the rebuilt data in the node, in said data storing process.

Regarding **claim 7**, Yonekura discloses the content relay node according to claim 1, further comprising:

means for reading (s5-Fig. 2) out data stored in the node and re-transmitting the data in the case where the receiving unit detects a data transmission request ([0035], line 9).

Regarding **claim 8**, Yonekura discloses the content relay node according to claim 1, further comprising:

means for determining (allocates, [0035], line 8) a route and constructing (execute, [0044], 2<sup>nd</sup> line from the end) an SRT (URL, [0044], last line) on the basis of data size ([0045], line 7 – end) of a received data flow and available memory space (server, [0045], line 7) in the next storage for relay at the time of determining correspondence, to be registered in the SRT, between a destination NSA and the next NSA for relay.

Regarding **claim 9**, Yonekura discloses the content relay node according to claim 1, further comprising:

means for notifying the other nodes constructing a content routing network of available memory spaces to each other (see whole [0045]).

Regarding **claim 10**, Yonekura discloses the content relay node according to claim 1, wherein said receiving unit has means for determining (allocates, [0035], line 8) whether data supplied to an input port is to be routed based on a storage address (IP address, [0035], line 7) or not (see whole [0039]).

Regarding **claim 11**, Yonekura discloses the content relay node according to claim 1, further comprising:

means for using route information obtained by function of a transfer protocol of a lower layer (IP, [0035], line 7 and 1-end) at the time of determining a transfer route.

Regarding **claim 12**, Yonekura discloses the content relay node according to claim 1, further comprising:

means for dividing ([0037], lines 1-3) data into a plurality of packets in an application layer as necessary and transmitting the packets.

Regarding **claim 13**, Yonekura discloses the content relay node according to claim 1, wherein said data packet is comprised of a header ([0047], line 9) portion including a data attribute of the application layer and data portion including the contents of data ([0047], lines 8-11).

Regarding **claim 15**, Yonekura discloses the content relay node according to claim 1, wherein said data packets include, as a data attribute included in the header,

data identifiers indicating that the data packets are generated from the same data, and packet identifiers indicative of the order (reduced, [0040], last 3 lines) of the data packets as re-building (decompress, [0062], line 2) information in the case where the data is divided (reduced, [0040], lines 1-3) and the resultant is transmitted ([0037], lines 1-3).

***Claim Rejections - 35 USC § 103***

3. **Claims 2, 3, 14, and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonekura (Pub No. US 2002/0087730 A1).

Regarding **claim 2**, Yonekura discloses the content relay node according to claim 1, wherein said routing control unit further comprises:

a storage routing table ([0047], line.12, "a table correlating the model of the portable telephone set with the type of the display at the content relay service device 10a side, the display type of the portable telephone set 20a which has made access can be determined" play the function of routing table, and [0035], line 8) (SRT) expressed by using said network storage address (NSA) (web page, [0048], 3<sup>rd</sup> line from the end) for identifying a storage ([0048], last 4 lines) on a network; and

means for determining (allocates, [0035], line 8) one of said output ports (20a—Fig. 1) corresponding to the designated NSA ([0035], line 9) by using said SRT ([0035], line 8).

Regarding **claim 3**, Yonekura discloses the content relay node according to claim 2, wherein said NSA is expressed by one piece of or a combination of a plurality of pieces of information (s3, s7-Fig. 2) indicative of position of a relay node on a



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network, identification information of a storage distinctive physically or logically, and information for specifying a data storage location (URL, [0045], line 6) by designating a directory or a block address in a storage area ([0048], lines 10-11).

Regarding **claim 14**, Yonekura discloses the content relay node according to claim 1, wherein said data packet includes in a header portion thereof a destination NSA and a source NSA of the data packet ([0047], lines 8-11, to a person skilled in the art, destination and source – the like, in [0047], line 11 – are included in the header portion of the data packet).

Regarding **claim 16**, Yonekura discloses the content relay node according to claim 1, wherein said data packet includes priority information (to a person skilled in the art, priority information – the like, [0047], line 11 – is included in the data packet).

#### ***Response to Amendment***

4. Applicant's amendment filed November 5, 2007 has been received and considered.

#### ***Response to Arguments***

5. Applicant's arguments filed November 5, 2007 have been fully considered. Applicant's amendment necessitated the new ground(s) of rejection.

Applicant added that data packets include a storage address of the application layer. Kolsky disclose that data include a storage address of the application layer ([0114], lines 7-8).

#### ***Conclusion***

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6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wanda Z. Russell whose telephone number is (571) 270-1796. The examiner can normally be reached on Monday-Thursday 9:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 271-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WZR

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